

**Abstract:**

A system is described for obtaining intraoral radiographic images using an anatomically conforming sensor and a method is described for correcting the projective distortions caused by the inclination of the plane of the imaging sensor relative to the x-ray beam. The purpose of the described sensor system is to reduce patient discomfort as compared to conventional planar intra-oral x-ray sensors, which tend to impinge on sensitive tissues within the oral cavity. An additional purpose of the described system is to allow for better coverage of the subject by allowing the sensor to fit closer against the surrounding tissues.